In the Claims:

1. (Original) A gas chromatograph, comprising:

a column to separate components of a fluid sample in a fluid stream;

a valve switch connected upstream of said column, said valve switch also being connected downstream of a sample source, and downstream of a carrier gas source;

a first heater for heating said column to a first desired temperature;

a second heater for heating a carrier gas stream from said carrier gas source to a second desired temperature,

wherein said second desired temperature is higher than said first desired temperature.

A2 cont'd

2. (Original) The gas chromatograph of claim 1, further comprising:

a back pressure restrictor upstream of said column.

3. (Original) The gas chromatograph of claim 2, wherein said back pressure restrictor is capillary tubing.

4. (Original) The gas chromatograph of claim 1, further comprising:

a back pressure restrictor upstream of said valve switch.

5. (Original) The gas chromatograph of claim 4, wherein said back pressure restrictor is capillary tubing.

6. (Original) The gas chromatograph of claim 1, wherein said second temperature is at least 5 degrees Celsius above said first temperature.

7. (Original) The gas chromatograph of claim 1, further comprising:

means for cooling said carrier gas stream to a third desired temperature.

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8. (Original) The gas chromatograph of claim 1, further comprising a housing surrounding said second heater.

9. (Original) The gas chromatograph of claim 8, wherein said gas chromatograph further includes in said housing a means for cooling said carrier gas stream.

10. (Original) The gas chromatograph of claim 1, wherein second heater heats said carrier gas stream to a series of predetermined temperatures according to a temperature program.11. (New) The gas chromatograph of claim 1, further comprising:

an effective back pressure restrictor upstream of said column.

A3 cont'd

12. (New) The gas chromatograph of claim 1, further comprising:

an effective back pressure restrictor upstream of said valve switch.

13. (New) The gas chromatograph of claim 1, wherein said second temperature is about five to ten degrees Celsius higher than said first temperature.

14. (New) The gas chromatograph of claim 1, further comprising:

a back pressure restrictor downstream of said column.

15. (New) The gas chromatograph of claim 14, further comprising:

an effective back pressure restrictor upstream of said column.

16. (New) The gas chromatograph of claim 14, further comprising:

an effective back pressure restrictor upstream of said valve switch.

A3 cont'd

17. (New) The gas chromatograph of claim 1, further comprising:

at least a second valve switch;

a back pressure restrictor upstream of all valve switches in said gas chromatograph.

18. (New) A method to analyze a sample, comprising:

(a) heating a carrier stream for a gas chromatograph to a carrier stream temperature higher than a column temperature, said column temperature being the internal temperature for a column in said gas chromatograph;

(b) measuring constituent concentrations for said sample, wherein said sample and said carrier stream pass through said column.

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19. (New) The method of claim 18, wherein said carrier stream temperature is about five to ten degrees Celsius higher than said column temperature.

20. (New) The method of claim 18, further comprising:

placing a back pressure restrictor upstream of said column.

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21. (New) The method of claim 18, further comprising:

placing a back pressure restrictor downstream of said column.